

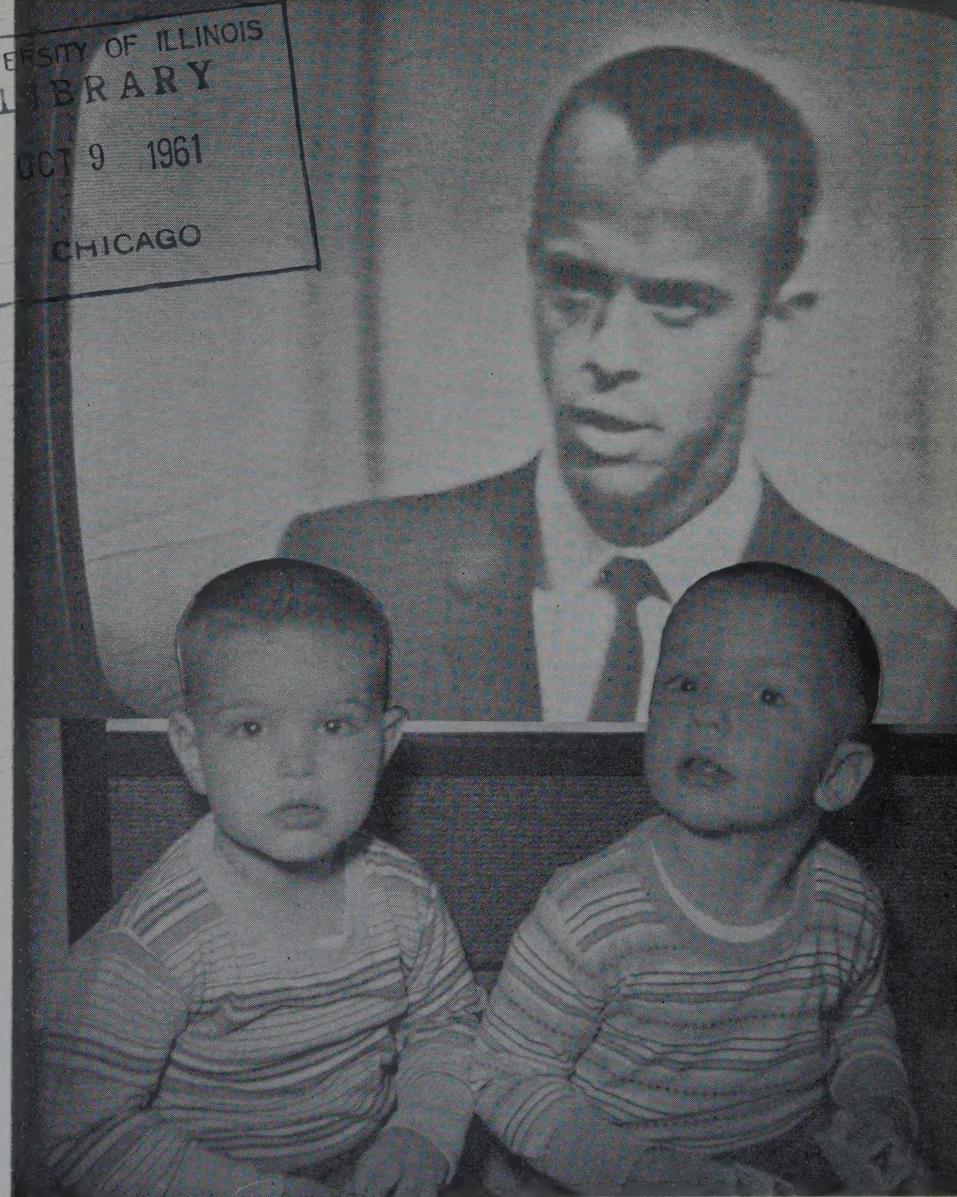


the **ILLINOIS ENGINEER**



Spacemen?

Who? US???



THE ILLINOIS ENGINEER

JUNE, 1961

VOLUME XXXVII, NO. 6

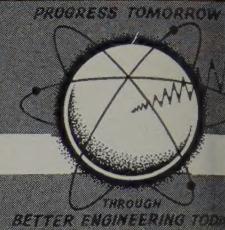




THE ILLINOIS ENGINEER

ILLINOIS SOCIETY OF PROFESSIONAL ENGINEERS, Incorporated

Affiliated with the National Society of Professional Engineers



H. F. SOMMERSCHIELD, President (77)*
L. D. HUDSON, Past President (77)
G. L. FARNSWORTH, Secretary
R. D. COLLINS, Treasurer

BOARD OF DIRECTION

H. F. SOMMERSCHIELD, President (77)
MANUEL GARCIA, Vice President (77)
LOUIS A. BACON, Vice President (77)
C. DALE GREFFE, Vice President (77)
G. L. FARNSWORTH, Secretary (77)
R. D. COLLINS, Treasurer (78)
L. D. HUDSON, Past President (77)
J. R. CARROLL, National Director (79)
ROYCE E. JOHNSON, National Director (79)
WILLIAM S. GRAY, National Director (78)
F. W. EDWARDS, National Director (77)
C. E. MISSMAN, National Director (77)
K. E. WELTON, Chairman I.E.C. Representatives (80)
NEWTON Y. ALVIS, Ambraw (77)
RALPH J. LOFQUIST, Beverly (79)
SHAMEL MOORE, Bloomington (78)
H. L. BRANTLEY, Capital (78)
ARTHUR C. KESSELL, Capital (77)
GEO. WILSON, Central Illinois (78)
M. DEAN WURTH, Central Illinois (77)
JOHN T. KEARNS, Champaign (77)
W. W. HINSHAW, Champaign (78)
R. A. WOLFSON, Chicago (78)
ROBERT GEYER, Chicago (77)
WALTER LINZING, Chicago (78)
ANTHONY ZUMMER, Chicago (77)
MILTON PIKARSKY, Chicago (78)
BENJ. R. HOUDEN, DuKane (78)
JOHN J. FAST, DuKane (77)
GEO. R. GLENN, Egyptian (78)
ORVILLE A. EVANS, Illinois Valley (77)
W. K. WALTZ, Joliet (77)
G. M. DIXON, Lake County (77)
C. H. SHEPPARD, Madison County (77)
GEO. SAUNDERS, North Shore (78)
D. E. GUSTAFSON, Northwest Suburban (78)
OSCAR L. JOHNSON, Peoria (77)
R. K. BENSCHING, Rockford (78)
JERALD CONROY, Rock River (78)
ARTHUR J. FEICKERT, St. Clair (77)
PAUL E. FLOOD, Salt Creek (78)
RALPH MICHAEL, Salt Creek (77)
R. A. EKSTROM, Sauk Trail (78)
JOHN P. DAHLBERG, West Central (78)

* Refer to Annual Meeting at which present term expires.

MANUEL GARCIA, Vice President
LOUIS A. BACON, Vice President
C. DALE GREFFE, Vice President

H. E. BABBITT, Secretary Emeritus
ROBERT J. NEWBURY, Exec. Director and
Editor
MARY WATT, Office Mgr. and Asst. Editor

CHAPTER OFFICERS FOR 1961

CHAPTER	PRESIDENT	VICE-PRESIDENT	SECRETARY-TREASURER
Ambraw	Ralph Hedcock	Earl Moldovan	Gordon Kirkman
Beverly	Joseph P. Marion	Edward Lysen	Edw. Jamrozy, Sec. Wm. Dangremont, Treas.
Bloomington Area	Robert J. Dennis	Paul E. Baird	Wm. G. McMichael
Capital	Gerald Margrave	Chas. A. Marr	A. L. Frank, Sec. R. L. Rosenberger, Treas.
Central Illinois	Harlow Piper	Gilbert Hesemann, 1st Ed Milanski, 2nd Rodger Snelson, 3rd	James Sebern
Champaign	Daniel F. Hang	Herbert W. Byers, 1st R. J. Henneman, 2nd	Walter H. Johansen, Sec. George Porter, Treas.
Chicago	James G. Flood	Howard Depree	David Novick, Sec. Harry Watson, Treas.
DuKane	Walter Deuchler, Jr.	Paul F. Riddle	James Svoboda, Sec. J. R. Rakow, Treas.
Egyptian	John W. Weaver	Roy E. Vinyard	Robert R. Gates
Illinois Valley	Melvin S. Hook	Jerry E. Raffensperger	John H. O'Reilly
Joliet	Sanger Westphal	Wayne S. Madden	Donald Larson, Sec. O. F. Bolling, Treas.
Lake County	Frank J. Furlan	A. G. Hansen, Jr.	C. E. Anderson, Treas. Carl A. Anderson, Sec.
Madison County	E. N. Juneau	Vernon Weber	Carl D. Peters
North Shore	John L. Donoghue	Paul Stiefel	W. V. Wagner, Sec. Harold Love, Treas.
N. W. Suburban	Kenneth G. Cook	Carl H. Bowen	A. N. Angonese, Sec. Chas. R. Hays, Treas.
Peoria	Emmett Smith	Delwin Cobb	Edwin Fall, Jr., Sec. Robert Tolf, Treas.
Rockford	H. W. Flath	John G. Shedd	Clarence H. Wilson
Rock River	C. N. A. Richards	Tom Gazda	Dallas LaCoursiere
St. Clair	Jos. W. Goldenberg	Harold G. Wise	Henry E. Davis, Jr.
Salt Creek	C. K. Creelman	R. V. Doherty	F. H. Sanneman, Sec. H. M. Rayner, Treas.
Sauk Trail	Sydney L. Zeid	Wm. J. Santina	Ivan J. Law, Sec. L. C. Baskin, Treas.
West Central	R. S. Langman	W. H. Stoewer	Edw. D. Walker

COMMITTEES 1960-1961

I.E.C. REPRESENTATIVES

K. E. WELTON, Chairman

J. D. VOORHEES

R. H. RENWICK

DWAIN WALLACE

ADMINISTRATIVE

Executive

H. S. Sommerschield, Chairman; Manuel Garcia, C. Dale Greffe, Louis A. Bacon, R. D. Collins, G. L. Farnsworth, L. D. Hudson, C. E. Missman.

Awards

L. D. Hudson, Chairman

Nominating

Virgil Gunlock, Chairman

Operations Group

Manuel Garcia, Chairman

Membership—G. Marks

Constitution & Bylaws—G. H. Shanahan

Functional Sections—Roland Olson

Budget and Finance—M. Garcia

Chapter Activities—L. W. Pickles

STANDING

Professional Group

Louis Bacon, Chairman

Education—Ralph Michael

Employment Practices—Geo. Glenn

Ethics & Practices—Robert Hamilton

Fees & Salaries—Wm. Blank

Legislation—L. K. Crawford

Registration Laws Sub-Committee—

T. D. Gazda

Young Engineers—Lee Rhodes

Public Relations Group

C. Dale Greffe, Chairman

Building & Construction Codes—

J. G. Goldenberg

Civil Defense—J. W. Marquardt

Inter-Professional Relations—

Emory Ikan

Publications—A. C. Kessell

Advertising Sub-Committee—

James G. Flood

Public Relations—J. E. Scott

Resolutions—W. G. Flagg

Special

Atomic Energy—S. H. Fistedis

The ILLINOIS ENGINEER is published monthly by the Illinois Society of Professional Engineers, Inc., at 714 Myers Building, Springfield, Illinois.

The Illinois Society of Professional Engineers is not responsible for statements made or opinions expressed in this publication.

Second-Class postage paid at Springfield, Illinois.

Subscription rates are \$2.00 per year in advance to members of the Illinois Society of Professional Engineers; \$4.00 per year in advance to non-members in U.S.A. and its possessions, Canada, and Mexico. Foreign \$6.00. Single copies 40c. Special issues \$1.00.

SPE BACKS DEFENSE EDUCATION ACT

The National Society of Professional Engineers has endorsed pending Administration-backed legislation to extend and expand the National Defense Education Act for three years.

In testimony before an education subcommittee of the Senate Committee on Labor and Public Welfare, Paul H. Robbins, executive director of the 56,000-member engineering group, said that the present law as "provided a valuable incentive for progress in our educational efforts."

Robbins stated that the National Society "strongly and enthusiastically endorses a permanent extension and substantial enlargement of the existing program of graduate fellowships, for it is in the area of graduate education that direct Federal stipends for individual students will be most productive."

Robbins also testified that the role of the engineering technician in improving the utilization of engineering manpower is such that the Area Vocational Education Programs ought to be revised and broadened in order to strengthen the Federal Government's part in technician training. He urged that consideration be given to the following:

A. A clear distinction should be made between technical education and vocational training.

B. Technical education assistance programs should be classified as a proper function of higher education, and not confined to less-than-college-grade courses as presently conceived.

C. Expanded Federal assistance for technical education might provide funds to assist in the establishment of two-year branch colleges and two-year degree programs at existing institutions.

COVER—SPACEMEN? WHO? US???

Why Not?? Would have to be your answer to such a question by the two wide-eyed little rascals as they listened to the television report of America's first SPACE-MAN, Commander Alan B. Shepard. May 5, 1961, was a day that marked the opening of a new era for America's children. (The children pictured are Mark (2) (left) and David (3)—sons of the ISPE Executive Director and his wife, Helen.) Let your imagination run wild! How will Commander Shepard's feat affect the lives of these two children and children like them all over America twenty-five years from now?

INDEX OF CONTENTS

NSPE Backs Defense Education Act	1
President's Column	1
Regional ISPE Workshops	2
ASCE Hydraulics Division Conference	3
U. of I. Student Chapter	3
Amvit Plant	5
Professional Corner	6
Sodemann Heads IACE	10

PRESIDENT'S COLUMN

A professional society to serve the mutual interests of all branches of engineering is the most urgent need of our profession. In retrospect, it is now apparent that, ASCE could have served in this role. Obviously,



Harold Sommerschield,
President

the many special groups which splintered from ASCE would not now, relinquish their autonomy and return to the fold. It is regrettable that the early leaders of ASCE did not have benefit of hindsight as do we.

The technical needs of engineers are adequately served by the special group societies. Every engineer should become affiliated with the Soci-

ety serving his specific branch of engineering. It is impossible for these Societies, however, to adequately serve the professional, social and economic welfare of their membership. These objectives are common to all engineers and must be served by a Society that encompasses all branches of our profession.

NSPE and ISPE possess this characteristic. No other organization even approaches the success they have had in these areas. They provide the most effective media for the development of a strong professional engineering community.

To develop a profession which will thrive, the desires of all within the profession must be known. The cooperation and support of a large compliment of engineers representing all branches of the profession must be obtained.

In Illinois the influence of ISPE is becoming more effective by the day. Our Society has materially grown in numbers in the past few years. This past year we led all State Societies in NSPE with a potential of over 5,000 prospects in growth. This we have done twice in the last three years.

Active programs in legislation, public relations, ethics and practice, employment practices and many other areas are being pursued. For the first time in our history our gross budget exceeds \$100,000. This amount is being expended to raise the standards of our profession. Every engineer, whether or not he is registered or a member of ISPE, is the recipient of the benefits derived to some degree.

(Continued on Page 9)

115 CHAPTER OFFICERS AND COMMITTEE PERSONNEL ATTEND THREE REGIONAL ISPE WORKSHOPS

1. J. D. Strong, NSPE Field Representative, attends Rockford Conference. ISPE V. Pres., C. Dale Greffe (right).

2. Third Saturday in May—11 Northern Chapters meet in Rockford.



3. 2nd Sat. in May—Springfield entertains seven chapters from central Illinois.



4. 1st Sat. in May—SIU at Carbondale plays host to four southern ISPE Chapters.

A record attendance of chapter officers and committee chairmen attended the May workshops held throughout the state by ISPE officers and staff members. Harold F. Sommerschield, ISPE President; Vice-Presidents C. Dale Greffe, Manuel Garcia and Louis Bacon; ISPE Executive Director, Robert J. Newbury, and Mary Watt, Office Manager, started traveling the first weekend in May and didn't stop until the last.

They ranged from Carbondale to Springfield to Rockford and at the last stop, J. D. Strong, NSPE Field Representative, joined the workshop staff to give and get ideas for NSPE.

At these conferences, the ISPE President and Vice-Presidents concentrated their efforts on committee work falling under their respective jurisdictions. The informality of the workshops made for the free give and take of ideas on every ISPE Committee. The Executive Director and Office Manager aimed their guns at streamlining the paper work deluged upon the Chapter officers,

and solicited ideas for improving the ILLINOIS ENGINEER. These conferences proved to be very popular and productive, and the results of the ideas are still being catalogued in the state office. Chapter officers and Committee Chairmen will soon be receiving the benefit of their brainstorms in a more streamlined and efficient horizontal communication. A more detailed analysis of these conference ideas will be subsequently printed in the ILLINOIS ENGINEER after all three conference minutes have been coordinated.

NSPE & ISPE MEETINGS

NSPE Annual Meeting, Seattle.....	July 4-7
ISPE Executive Committee, St. Louis.....	July 15
ISPE Executive Committee, Springfield.....	Aug. 5
ISPE Board of Direction, Kankakee.....	Sept. 9

AMERICAN SOCIETY OF CIVIL ENGINEERS, HYDRAULICS DIVISION, TENTH ANNUAL CONFERENCE

The Tenth Annual Hydraulics Conference, sponsored by the Hydraulics Division of the American Society of Civil Engineers, will be held August 16-18, 1961, in Urbana, Illinois. The co-hosts are the University of Illinois and the Central Illinois Section of the American Society of Civil Engineers.

The six half-day technical sessions will be held on the University campus in an air-conditioned auditorium. Those attending the conference will be housed in a recently completed dormitory.

The technical sessions will feature papers by nationally known experts in the fields of Ground Water Hydrology, Surface Water Hydrology, Hydrometeorology and Flood Control, Hydraulic Structures, Sedimentation, and Hydromechanics.

Mr. William H. Wisely, Executive Secretary of the American Society of Civil Engineers, will speak on "Society Affairs" at the August 16 conference luncheon.

Mr. Floyd E. Dominy, Commissioner of Reclamation, Bureau of Reclamation, U. S. Department of Interior, will speak at the August 17 evening banquet on subject of timely interest to hydraulic engineers and their wives.

Activities of special interest for the ladies and children include an all-day Lincoln Tour to Springfield, Illinois, and New Salem State Park, Illinois, to visit Lincoln's Home, Tomb, and the restored village of historic New Salem. Swim parties and picnics are planned for the children.

Now is the time to enter the dates August 16-18, 1961, on your calendar and plan to attend with the entire family while on vacation in Central Illinois.

Additional information may be obtained by writing to Professor James M. Robertson, 125 Talbot Laboratory, University of Illinois, Urbana, Illinois.

ENGINEERING FIRM ORGANIZED



Mr. Ralph C. Hahn, Capital Chapter, announces the opening of an office to practice Consulting Engineering at 706 Ferguson Building, Springfield, Illinois. The practice includes highway and railway bridges; industrial, commercial, and institutional buildings; foundations and soils; and general civil engineering projects.

UNIVERSITY OF ILLINOIS FORMS NEW ISPE STUDENT CHAPTER

On May 25, 1961 the University of Illinois Student Chapter of ISPE was officially presented their state charter by Harold F. Sommerschield, ISPE President. Following remarks by Mr. Sommerschield and ISPE Executive Director Newbury, Dr. George E. Ekblaw, the guiding light behind the successful formation of this student chapter, officially turned over the reins of the new chapter to student officers and faculty advisor, David Reyes-Guerra.

A message from Dean William L. Everitt, who was unable to be present, was read to the more than 30 guests and student chapter members. Dean Everitt congratulated the group on their professional activity and pledged the support of his office to the furtherance of professionalism through the new student chapter.

STUDENT CHAPTER OFFICERS ACCEPT CHARTER



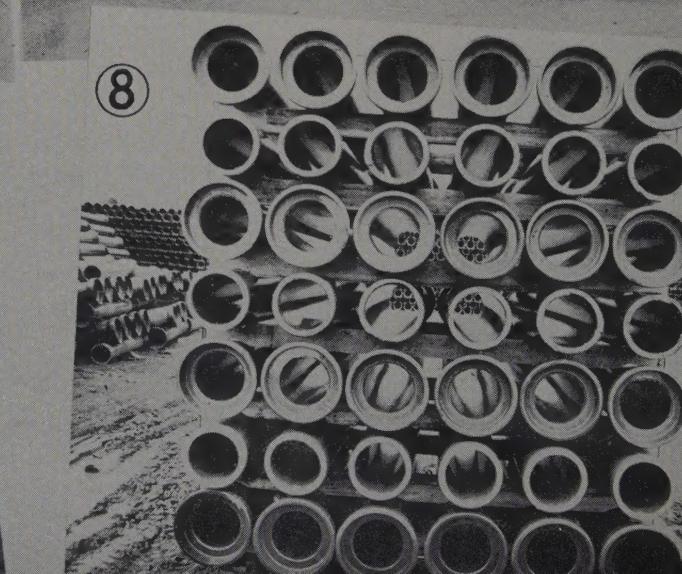
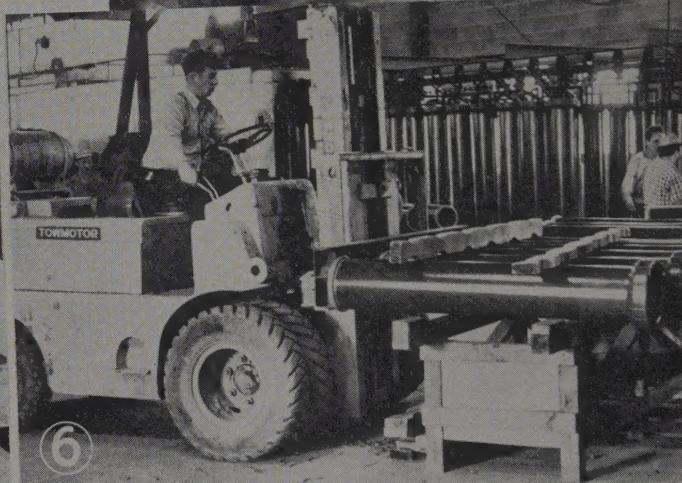
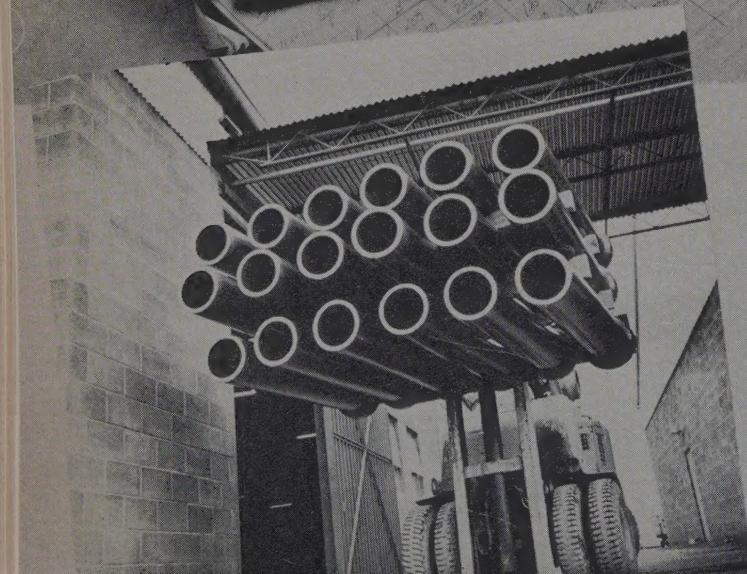
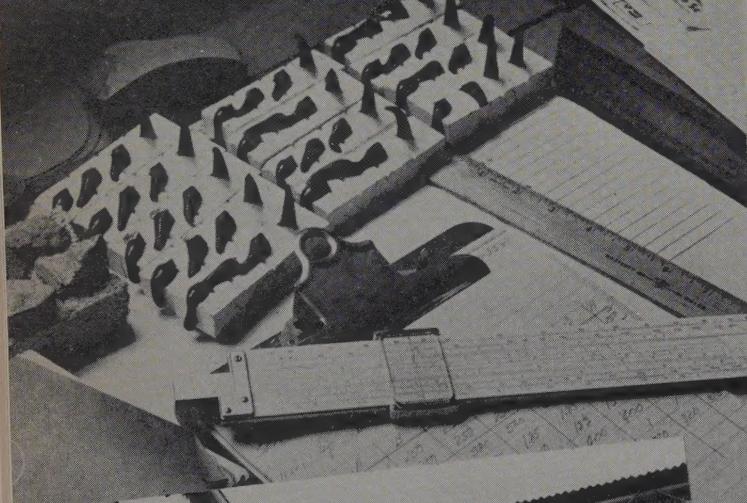
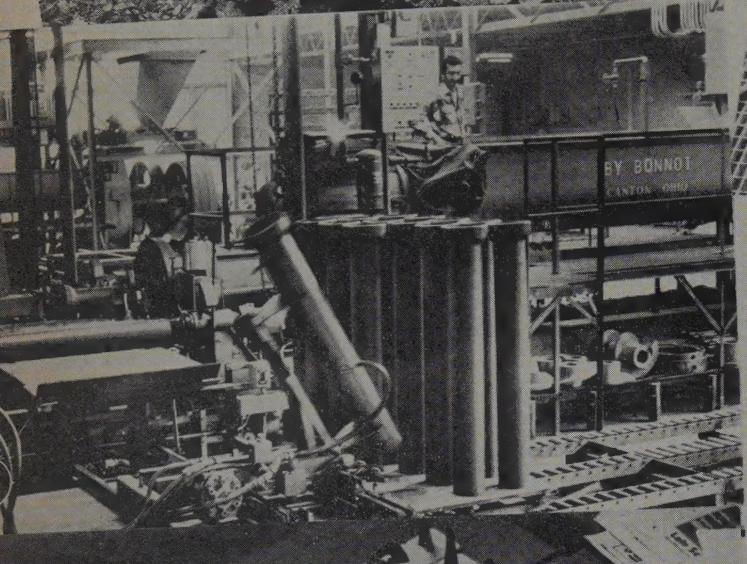
Seated: (L to R) Harold F. Sommerschield, ISPE Pres., Lyle S. Martin, Student Chapter Pres., David Reyes-Guerra, Faculty Advisor.

Standing: (L to R) Philip O. Schemmel, V. Pres., Cynthia Christofferson, Sec., John Laurenson, Treas.

Associated with Mr. Hahn on engineering projects is Mr. M. F. Lindeman, P.E., also a member of Capital Chapter; and associated with Mr. Hahn on projects involving the services of an architect is Mr. Robert Lloyd Buckles, A.I.A.

Mr. Hahn recently resigned from the Bridge Office of the Illinois Division of Highways where he was in charge of a Bridge Design Squad. He was previously chairman of the State Soils Committee for 3½ years. He is a past president of Springfield Chapter, Illinois Association of Highway Engineers and at the time of his resignation was a member of the Board of Directors of IAHE.

Mr. Hahn holds the degrees of Bachelor of Science, Civil Engineering and Master of Science, Structural Engineering, both from the University of Illinois; and is a Registered Professional Engineer, and a Registered Structural Engineer.



MVIT'S SOMERVILLE PLANT MOVES INTO FULL PRODUCTION

The most modern vitrified clay pipe plant in the world has begun production near Somerville, New Jersey. Its manufacturing processes come closer to complete automation than any other known means for manufacturing clay pipe.

This new plant, owned and operated by American Vitrified Products Company, Cleveland, Ohio, will have a capacity of 40,000 tons of pipe a year. It uses fully and partially automated equipment which has already raised operating efficiency over 50 per cent and cut manufacturing costs substantially.

The plant was built on top of a rich shale deposit (1) which is mined by the strip method. Fireclay and shale are individually piled, crushed, ground and screened separately (2) then stored in individual bins or giant hoppers each of 600-ton capacity.

As the extrusion machines' need for material increases, the clay and shale are automatically blended in a precise formula, pre-mixed, then released to a conveyor-belt system which transfers the exact mixture to the automatic extrusion machines. This is a continuous operation performed entirely by preset machines. Specially treated water is automatically mixed with the clay as it reaches the pugmill. The prepared mixture is then extended through a de-airing chamber from which an automatic auger drives the material through a sized, forming die.

The pipe is automatically cut to specified length as it emerges from the extruder (3). It is then finished, tapered and rolled onto an automatic palletizing machine which stands the pipe vertical and properly spaces it in a pallet. (4) Special shapes and fittings are hand-crafted by experienced workers and go through the drying and firing stages with the other pipe.

Pallets are then removed by a lift truck and placed in an automatic pusher which drives them continuously through drying ovens.

The time spent by pipe in these ovens is determined by American Vitrified Products engineers (5) whose research has developed formulae based on the size, wall thickness and inside diameter of the pipe. Hot air is injected into the ovens at predetermined times to build up humidity to a degree required for the particular kind of pipe in the drying ovens. Humidity is then released through a specially designed exhaust-fan system, then automatically shut off and the pipe removed from the driers by means of hydraulic lifts.

Pallets of pipe are then placed in temporary storage, or taken to a glazing pit. This process, developed exclusively by Amvit engineers, makes possible ceramic glazing of pipe a pallet-load at a time. The pipe are then set on individual rings by an air-hoist system and positioned semi-automatically on 10-by-10-foot kiln cars. A special powder is dusted on the rings to make pipe easily removable after vitrification.

The cars, moving in a continuous line, pass through a pre-heated drying area and eventually enter the tunnel kiln for firing. Amvit researchers have determined the exact periods of time required for this drying process to prepare pipe for vitrification. Without it, pipe exposed to burning are subject to thermal shock.

The firing zones are adjusted to fit the material. They consist of:

1. A preheat zone of gradually increasing intensity to prepare the pipe for burning and bring the inside of the walls to the humidity level of the outside and inside surfaces.
2. A hot zone in which the pipe is uniformly fired.
3. A cooling zone in which palletized pipe are prepared for removal from the kiln.

The speed with which the kiln-cars pass through this zoned burning area is determined by the material on the cars. Automatic controls adjust the movement of the cars from zone to zone. Generally, some 18 car-lengths of pipe pass through the kiln in each continuous 24-hour operation.

The cars pass individually from the kiln and are transferred to a palletizing area where the pipe is removed, palletized and placed in the (6) joint department. At this point laboratory technicians check each load for crushing strength, dimensions, shrinkage and quality of ceramic glaze application.

A special adhesive is then placed on the pipe; they are picked up by an air hoist and hung on an overhead conveyor system. Dies are inserted at both the bell and spigot ends of the pipe and the conveyor takes its continuous load through yet another preheat zone to an area where the pipe are centered in the dies, and plastisol is applied with special pressurized guns into both dies. This provides the joint application.

The conveyor then carries the pipe into a curing zone at a predetermined rate of speed and temperature. In a cooling zone the dies are removed leaving the plastisol joint intact at either end. The pipe is then placed on pallets for storage or shipment. (7) The finished pipe are taken to storage yard where they await shipment into the field. Man-saving equipment is used throughout the entire plant. (8) Acres of finished pipe await shipment to contractors. This final product is one of the most enduring materials that man can make.

POSITION AVAILABLE

SURVEY PARTY CHIEF

Opportunity for permanent employment for man experienced as Party Chief on general engineering surveys. Must be free to make periodic moves. Responsible position with long-established consulting engineering firm. Please submit resume of education, experience, salary requirements, and availability to: Personnel Director, Stanley Engineering Company, Muscatine, Iowa.

PROFESSIONAL CORNER

*Talk By ROYCE E. JOHNSON,
National Director*

It is appropriate that we give thought at the beginning of the year to the various activities and hobbies on which we spend or squander time. If this is done and our time purposefully directed according to a plan to accomplish some particular objects we will find that we have accomplished much more by the end of the year than if we just drift along doing what interests us from night to night or week-end to week-end.

The activities and inactivities in which we participate may be so numerous that our efforts will be diluted to the point of no accomplishment in any one of them. What we do outside our regular work day is so diversified, for many of us, that the activities cannot all be named at any one time. These activities may include do-it-yourself home jobs, aimless, entertaining, useless and educational reading, radio and T-V listening. Other activities include active or passive participation in sports, Hi-Fi, Stereo, photography, fraternal, social, professional, technical and scientific organizations. Still others include fishing, hunting, camping and sightseeing.

One of the most difficult things for each of us, I believe, is to force himself to use his time and energies most effectively and purposefully. As professional engineers we might well analyze our spare time activities to ascertain whether we are neglecting or overlooking one type of activity which can benefit our profession and simultaneously benefit ourselves. I refer to activity in the ISPE at chapter and state levels. It was good to hear President Kennedy emulate the professional engineer's philosophy: Not what has my professional society done for me but what have I done for my profession. Pres. Kennedy, you will recall, aptly (and let us hope sincerely) pointed out that citizens should think in terms of what they can do for their country rather than what their country can do for them. In both situations the old rather trite expression still holds: "You get out of an organization what you put into it".

A return like that on any activity is not unreasonable, but from many of our day to day spare time activities what return do we get? Not much, I'm sure, because they are of such a nature we can't put much thought or effort into them.

Professional society membership offers a considerable opportunity for activity that helps the engineering profession and thereby directly and indirectly rewards the participant. The rewards do not all appear,

or maybe never appear, as salary increases, but nevertheless members who are active in ISPE for example receive benefits of some kind in return for their activity.

The industrially employed engineers generally feel that registration and professional engineering societies are primarily for consulting and civil engineers. This was the situation years ago but is not now. The largest group by type of employment in NSPE is the industrially employed group. And yet this group perhaps is the least cohesive of all. This is a challenge to members in an industrial city like Rockford. We should find useful ISPE activities for our Engineers-in-Industry and establish ourselves and our chapter as being alert, aggressive and alive rather than a 90% dead, uninterested-in-our-profession group that commands little respect.

As a starting point for discussion I shall mention several chapter activities that are worthwhile for industrially employed engineers.

1. Develop a program for assisting industrially employed engineers to become more professional in feeling and attitude.
2. Develop methods for getting employers to regard engineers as having professional status.
3. Get NSPE and ISPE to recognize that not all professional engineers are in supervisory positions. Their job classifications, as a basis for salary ranges, do not recognize the professional engineer who is not in a supervisory position.
4. Establish an information system to collect and usefully apply information regarding union encroachment among engineers and practices of employers which are conducive to formation of engineers' unions.
5. Promote graduate credit courses in Rockford for engineers.
6. Sponsor conferences and symposia on subjects helpful to engineers and/or their employers.
7. Cooperate with Chamber of Commerce and Public School System in student counselling.
8. Recommend curriculum improvements to engineering college faculties in Illinois.

Now, what we need is engineers who will work along these or other lines not mentioned, but of value to industrially employed engineers.

I suggest that at this meeting we discuss the activities we might well undertake and that when we get home we apply the analytical minds which we engineers have and decide to use our spare time wisely on worthwhile projects. I am confident that if we all follow through on this, a number of us will find it possible and worthwhile to get together again soon to decide how to proceed with one or more useful activities for our society.

SPECIAL!! ILLINOIS WINS NATIONAL MEMBERSHIP PLAQUE

The National Society of Professional Engineers has announced the 1960-61 Membership Contest Winners and they are as follows:

Group	Winner	Net Gain Per 1000 Prospects
I (under 400 prospects)	IDAHO	166.7%
II (400-800)	MISSISSIPPI	179.4
III (800-1200)	NEW MEXICO	78.2
IV (1200-2300)	ALABAMA	58.6
V (2300-5000)	DISTRICT OF COLUMBIA	20.5
VI (Over 5000)	ILLINOIS	15.7

The final results of just GROUP VI:

	Net Gain or Loss	Net Gain/Loss Per M	Rating
ILLINOIS	168	15.7	1
MASSACHUSETTS	119	14.3	2
CALIFORNIA	120	4.6	3
TEXAS	2	.25	4
NEW YORK	8	.68	5
OHIO	-117	-10.9	6
PENNSYLVANIA	-175	-20.2	7

Illinois' NSPE Directors will bring home the bronze plaque from the forthcoming National Convention at Seattle over the 4th of July week-end. The Illinois Society has won its division in two out of the last three years.

How to cut sewer pipe costs\$\$\$\$

4 WAYS with STREATOR CLAY PIPE with AMVIT JOINT



Buy just the size you need—AMVIT joint can not leak. No need to use "oversize" pipe to handle infiltrated ground water.

Just push spigot into the bell—No jointing material required. Watertight, root-proof joint is installed at the factory.

Test as installation is complete—Save time and labor as no waiting is required for jointing compounds to cure.

Fill trench immediately—Clear streets quicker as AMVIT joint permits immediate backfilling as soon as installation is complete.

It will pay you to learn all about this Streator AMVIT joint which makes Streator clay pipe even more valuable for every type of sewer installation. Why not call today?



Amvit plastic joint saves time and money... most economical in the long run. Write or call for complete information.

STREATOR 2-2131



A subsidiary of **JAMES B. CLOW & SONS, INC.**



resident's Column—

(Continued from Page 1)

Presently our membership represents about 20 percent of the registered professional engineers in our state. We cannot rightfully claim to represent the professional engineers of Illinois by virtue of this low percentage. In effect, however, we are representing all engineers simply because there is no other organization in the State dedicated to the professional aspects of engineering.

To be able to unequivocably say we represented the engineers of Illinois, because a vast majority of those registered to practice were included in our membership, would be gratifying. Surely, we all covet the day when this shall be the case. For, then it will be possible to determine the desires of the majority of professional engineers in our State. Now, we trust we are discerning the will of the majority; then, we will have knowledge of the will of all professional engineers because they will contribute their opinions through the

grass roots characteristics of our Society.

Obviously, an increase in our membership will contribute greatly to the effectiveness of the program of ISPE. Recognition of this fact should prompt all members to solicit the cooperation of their engineer friends to join our Society.

To those who may read this message, not now members of ISPE, we urge that you join us in the development of a virile professional engineering community. We need your help and cherish an opportunity to demonstrate our sincerity to help you. We invite your scrutiny and trust you will be sufficiently impressed with our efforts to become a part of us. If you do not agree with the manner in which we operate we trust you will join our Society and give us the benefit of your opinions.

We appeal to every professional engineer in the State to join us in our attempt to develop a Society capable of adequately serving the mutual interests of all branches of our profession.

CONCRETE PIPE-O-GRAM

THE CONCRETE PIPE INDUISTRY IS GEARED FOR THE 60'S.

LARGE INVESTMENTS IN IMPROVED CONCRETE PIPE—

NEW MACHINERY, RESEARCH AND QUALITY CONTROL—

BETTER SERVE THE CONSTRUCTION INDUSTRY

AND THE PUBLIC IN DRAINAGE AND SEWERS.

ILLINOIS CONCRETE PIPE ASSOCIATION

221 North LaSalle Street, Chicago 1, Illinois
Phone DEarborn 2-3908



NEW ASSOCIATES FOR CRAWFORD, MURPHY & TILLY

Crawford, Murphy & Tilly, Consulting Engineers, of Springfield, Illinois, have announced the appointment of four employees as Associates of the firm. Reorganization of the firm structure followed the recent retirement of Ray V. Tilly, former partner. Those appointed are: Charles L. Ritchie, Donald E. Thompson, Carl A. Wieland, and Elmer E. Young.

Charles L. Ritchie was graduated from the University of Illinois in 1948, with a degree of B.S. in Sanitary Engineering. Ritchie served in the U. S. Air Force from 1943 to 1946, including service in the Pacific as Navigator. His experience includes seven years with the Illinois State Department of Public Health as a Sanitary Engineer.

Ritchie is a registered Professional Engineer and holds membership in the Illinois and National Societies of Professional Engineers, and the Water Pollution Control Federation. He is Past-President of Capital Chapter of the Illinois Society of Professional Engineers and has served as President of Capital Association of Crippled Children. He is an elder at Westminster Presbyterian Church.

Donald E. Thompson was graduated from the University of Illinois in 1953, with a degree of B. S. in Civil Engineering. Upon graduation, he served two years with the U. S. Corps of Engineers. Fifteen months of this time was spent in the Far East performing geodetic mapping of Korea, Okinawa and the Philippine Islands.

Mr. Thompson joined Crawford, Murphy & Tilly in 1955. One of his assignments has been as a Project Engineer in charge of supervision of construction of a Contract Section of the Illinois Toll Highway. Thompson is registered in Illinois as a Professional Engineer and as a Structural Engineer. He is a member of the Illinois and National Societies of Professional Engineers.

Carl A. Wieland joined Crawford, Murphy & Tilly in 1946 following 2½ years in the European Theater with the Army Signal Corps. Wieland attended Springfield Junior College while working at this engineering office. Upon completion of the pre-engineering course, he attended Colorado University, graduating in 1950 with a B.S. in Civil Engineering. Since graduation he has been with Crawford, Murphy & Tilly continuously.

Wieland's duties are in connection with airport, sewer, paving, traffic lights, and street lighting projects.

Wieland is a Registered Professional Engineer and holds membership in the Illinois and National Societies of Professional Engineering. He is presently President of the Iles School P.T.A.

Elmer E. Young joined Crawford, Murphy & Tilly in 1949. His previous experience included six years

SODEMANN HEADS I.A.C.E.

George L. Sodemann, of Sodemann and Associates, Champaign, was elected president of the Illinois Association of Consulting Engineers at the association's annual meeting Saturday, May 20, in Springfield. He

served as vice president the past year. He also is a past president of the Champaign County chapter of the Illinois Society of Professional Engineers.

Sodemann, a native of Clinton, Iowa, received his bachelor's degree in civil engineering in 1950 from the State University of Iowa. He was employed in Burlington, Iowa, and Chicago before opening his own consulting engineering service in Champaign in 1955. He has been the consulting engineer for

water, sewage, street, and

public park facility projects in Champaign, Rantoul, Watseka, Metropolis, Danville, and Sullivan, Illinois, as well as in Michigan, New York, Florida, and Tennessee.

This past week the Rantoul Village Board retained Sodemann and Associates as the street engineer for Rantoul.

Other new officers elected by the Illinois Association of Consulting Engineers were Richard L. Thacker, Thacker Engineering Office, Waukegan, vice president; Robert Hofmann, Robert Hofmann and Associates, Dixon, secretary; Robert E. Hamilton, Robert E. Hamilton, Consulting Engineers, Joliet, treasurer; George J. Chlewicki, George J. Chlewicki and Associates, Harvey, and Charles W. Greengard, Charles W. Greengard Associates, Deerfield, directors; and Junius R. Gardner, Warren and Van Praag, Inc., Decatur, as delegate, and W. J. Campbell, Maccabee, Campbell and Associates, Chicago, as alternate delegate to the Consulting Engineers Council.

with the engineering department of the City of Springfield, ten years with the Sangamon County Highway Department, and three years with Central Illinois Public Service Company. Young's experience also includes service with Chicago & Illinois Midland Railway Company, the Chicago, Milwaukee & St. Paul Railroad, and the Wabash Railroad Company.

Young is a Registered Professional Engineer. He is a member of the Illinois and National Societies of Professional Engineers, American Association of Engineers, and Central Lodge 71, A.F. & A.M.



George L. Sodemann

BUSINESS AND PROFESSIONAL DIRECTORY

ESTABLISHED 1913

WALTER H. FLOOD & COMPANY

INSPECTION AND TESTING OF
MATERIALS AND STRUCTURES
RADIOGRAPHIC STEEL INSPECTION

Foundation Investigations Concrete Core Cutting
6102 Blackstone Ave. HYde Park 3-1512
CHICAGO 37

THIS SPACE
AVAILABLE

COMPLIMENTS
OF

GIERTZ-MELAHN ASPHALT COMPANY

Elgin, Illinois

COMPLIMENTS
OF

MAUTZ & OREN, INC.
Engineers and Constructors
Effingham, Illinois

3% PAID
ON
CERTIFICATES
OF DEPOSIT
IN ANY
DENOMINATION



Member Federal Deposit Insurance Corporation

ROCK ISLAND STEEL DIVISION MACOMBER

Charles R. Roberts, Member I.S.P.E., President
FABRICATED STRUCTURAL STEEL FOR BRIDGES
AND BUILDINGS

1603 Mill Street Phone 788-9543
ROCK ISLAND, ILLINOIS

HAZELTON PUMPS & PARRY DRYERS

RALPH J. LOFQUIST CO.

Commodore 4-1840

10228 Prairie Ave.

Chicago 28

THIS SPACE

AVAILABLE

MACLAIR ASPHALT CO., INC.

Manufacturers and Contractors of Bituminous Asphaltic Concrete, Hot Mixed or Cold Lay, For Railroad Crossings, Industrial Uses, Municipal Highways, Driveways, Parking Lots and Sidewalks.

Plant and Office

6303 COLLINSVILLE ROAD

P. O. BOX 249

BRidge 1-7470

EAST ST. LOUIS, ILLINOIS

HOTEL ST. NICHOLAS

O. P. Greathouse, Manager

Visit the "Glade"

American and Cantonese Menus

Your Favorite Beverage

SPRINGFIELD, ILLINOIS

PROFESSIONAL DIRECTORY

ALVORD, BURDICK & HOWSON

Water Works Water Purification Flood Relief
Sewerage Sewage Disposal Drainage Appraisals
Power Generation

20 North Wacker Drive

CHICAGO 6, ILLINOIS

AUSTIN ENGINEERING COMPANY

Consulting Engineers

115 S. Jefferson Ave.

Peoria, Ill.

Airports
Light and Power
Pavements
Sewerage
Waterworks

Phone 676-6169

PROFESSIONAL DIRECTORY

BELING ENGINEERING CONSULTANTS

DESIGNERS OF



Heating, Air Conditioning, Plumbing & Electrical
Systems for Buildings • Water & Sewer Systems &
Plants • Municipal Engineers, Subdivision Planners

307 - 16th St., Moline, Ill.

807 S. Neil St., Champaign, Ill. 1011 Main St., Peoria 5, Ill.
10 Third Ave., Joliet, Ill. 914 Grand Ave., Des Moines 9, Ia.
306 Park Ave., Rockford, Ill. 314 N. 4th St., Burlington, Ia.

155½ West Main Street

Decatur, Illinois

CLARK, DAILY and DIETZ
Consulting Engineers

Sewerage, Waterworks, Street Lighting, Highways, Swimming
Pools, Surveying and Mapping, Land Development
Studies, Bridges, Buildings, Foundations

211 North Race St.
Urbana, Illinois

188 Jefferson St.
Memphis, Tennessee

Consoer, Townsend & Associates
Consulting Engineers

Sewage treatment, sewers, storm drainage, flood control—
water supply and treatment—Highway and bridges—Airports
—Urban renewal—Electric and gas transmission lines—Rate
studies, surveys and valuations—Industrial and institutional
buildings.

360 East Grand Avenue

Chicago 11, Illinois

CORDES CONSULTING ENGINEERS

Registered Structural and Professional Engineers
and Land Surveyors

2415 Charles Street

Rockford, Illinois

CRAWFORD, MURPHY & TILLY
CONSULTING ENGINEERS

Water Works, Sewerage, Airports, Street
Improvements, Traffic Surveys
PHONE 8-5619

755 South Grand Avenue, West SPRINGFIELD, ILLINOIS

**CRESCENT ENGINEERING
COMPANY, INC.**

Contracting and Consulting Electrical Engineers
Design, Supervision and Construction
Process Power and Lighting for Industrial Plants

6455 South Central Avenue CHICAGO 38, ILLINOIS

CHARLES N. DEBES ASSOCIATES, INC.

ENGINEERS AND ARCHITECTS

STRUCTURAL - MECHANICAL - ELECTRICAL
ACOUSTICAL - INDUSTRIAL - COMMERCIAL
AND MUNICIPAL PROJECTS

915 East State Street

ROCKFORD, ILLINOIS

DE LEUW, CATHER & COMPANY

CONSULTING ENGINEERS

Public Transit
Traffic and Parking
Expressways
Grade Separations
Urban Renewal

150 North Wacker Drive, Chicago 6
San Francisco New York Boston

Subways
Railroad Facilities
Industrial Plants
Municipal Works
Port Development

150 North Wacker Drive, Chicago 6
San Francisco New York Boston

WALTER E. DEUCHLER ASSOC., INC.

Consulting Municipal Engineers

63 South LaSalle Street
Aurora, Illinois

FRIEDEWALD ENGINEERING CO.

Consulting Civil Engineers

311 South First Street
Belleville, Illinois

GOODKIND & O'DEA, INC.

Consulting Engineers

Foundations - Structures - Expressways
Flood Control

108 West Lake Street Chicago 1, Illinois

GREELEY AND HANSEN
ENGINEERS

Water Supply - Water Purification - Sewerage - Sewage
Treatment - Flood Control - Drainage - Refuse Disposal

14 EAST JACKSON BOULEVARD CHICAGO 4, ILLINOIS

Charles W. Greengard Associates

consulting engineers

Deerfield, Illinois

CIVIL • SANITARY • MUNICIPAL • UTILITY
reports, plans, supervision, appraisals

RALPH C. HAHN, P.E.

CONSULTING CIVIL AND STRUCTURAL ENGINEER

Bridges — Buildings — Foundations

LAkeside 3-8482 or
LAkeside 8-0197

706 Ferguson Bldg.
SPRINGFIELD, ILLINOIS

THIS SPACE
AVAILABLE

PROFESSIONAL DIRECTORY

HARZA ENGINEERING COMPANY

Consulting Engineers

Calvin V. Davis Richard D. Harza E. Montford Fucik
 Reports • Design • Supervision
 Hydroelectric Plants and Dams • Transmission Lines
 Flood Control • River Basin Development • Irrigation
 400 West Madison Street Chicago 6, Illinois

HAZELET & ERDAL

CONSULTING ENGINEERS

Long Span Bridges • Expressways • Movable Bridges
 Grade Separations • Airports
 53 West Jackson Blvd. CHICAGO 4
 LOUISVILLE CINCINNATI LANSING

JENKINS, MERCHANT & NANKIVIL

CONSULTING ENGINEERS

Municipal Improvements Gas Systems
 Highways & Airports Water Systems
 Power Development Sewerage Systems
 Traffic Surveys Industrial Plants
 Flood Control Recreational Facilities
 Investigations and Reports
 801-805 East Miller St. SPRINGFIELD, ILLINOIS



LAND SURVEYS

INDUSTRIAL • COMMERCIAL • RESIDENTIAL

Legal Descriptions, Property Lines, Rights of Way, Subdivisions, Topography, Construction Lines, Grades.

S. PASQUINELLI, Reg. Illinois, Indiana, Wisconsin

NATIONAL SURVEY SERVICE, INC., Reg. Engineers & Land Surveyors, 134 N. LaSalle RA 6-7608

R. W. ROBINSON & ASSOCIATES

CONSULTING ENGINEERS

Surveying • Sewage & Water Systems
 Complete Municipal Service
 Mailing Address
 357 East 170th Street 2445 S. Ridge Road
 SOUTH HOLLAND, ILLINOIS LANSING, ILLINOIS
 Phone Edison 1-6700 Phone Granite 4-6868

RUSSELL AND AXON

CONSULTING ENGINEERS

Civil - Sanitary - Structural - Industrial - Electrical
 Rate Investigations
 408 Olive Street, St. Louis 2, Missouri
 Municipal Airport, Daytona Beach, Florida

SARGENT & LUNDY

ENGINEERS

Consultants to the Power Industry

• STUDIES • DESIGN • SUPERVISION
 140 South Dearborn Street, Chicago 3, Ill.

M. C. SEIBERLING

LAND SURVEYORS

Dependable Service Since 1926
 Licensed Land Surveyors—Illinois, Wisconsin and Iowa
 SARatoga 7-4804

10 Third Avenue

Joliet, Illinois

HAROLD S. SHAFFER

CONSULTING ENGINEER

SOIL ENGINEERING SERVICES

Site Investigations - Borings - Soil Testing
 Analysis - Design - Field Inspection
 Engineering Reports - Consultation

1660 N. 21st St. Decatur, Illinois

SILANDER & SON

Established 1906

Land Surveyors - Civil Engineers

Town and Industrial Planning and Engineering, Subdivisions, Surveys and Legal Descriptions, Drafting Services.

RANDolph 6-9899

228 North LaSalle Street Chicago

SOIL TESTING SERVICES, INC.

Consulting Soil and Foundation Engineers

JOHN P. GNAEDINGER CLYDE N. BAKER, JR.

Site Investigations

Foundation Recommendation and Design
 Laboratory Testing Field Inspection & Control

1827 N. Harlem Avenue, Chicago 35, Illinois

STANLEY ENGINEERING COMPANY

CONSULTING ENGINEERS

208 South LaSalle Street, CHICAGO 4, ILLINOIS

Hershey Building, MUSCATINE, IOWA

Hanna Bldg., CLEVELAND 15, OHIO

SVERDRUP & PARCEL ENGINEERING COMPANY

Engineers - Architects

Bridges, Structures and Reports

Industrial and Power Plant Engineering

915 Olive Street St. Louis 1, Missouri

WARREN & VAN PRAAG, INC.

CONSULTING ENGINEERS

253 South Park Street 1224 North Capitol Avenue
 Decatur, Illinois Indianapolis, Indiana

Since 1918

Highways - Pavements - Bridges - Grade Separations - Airports
 Drainage - Street Lighting - Waterworks - Sewerage
 Investigations - Reports

WIGHT and COMPANY

Consulting Engineers

Expressways • Bridges • Water Supply
 Sewage • Municipal Improvements

1038 Curtiss Street Downers Grove, Illinois
 and
 446 Main Street Barrington, Illinois

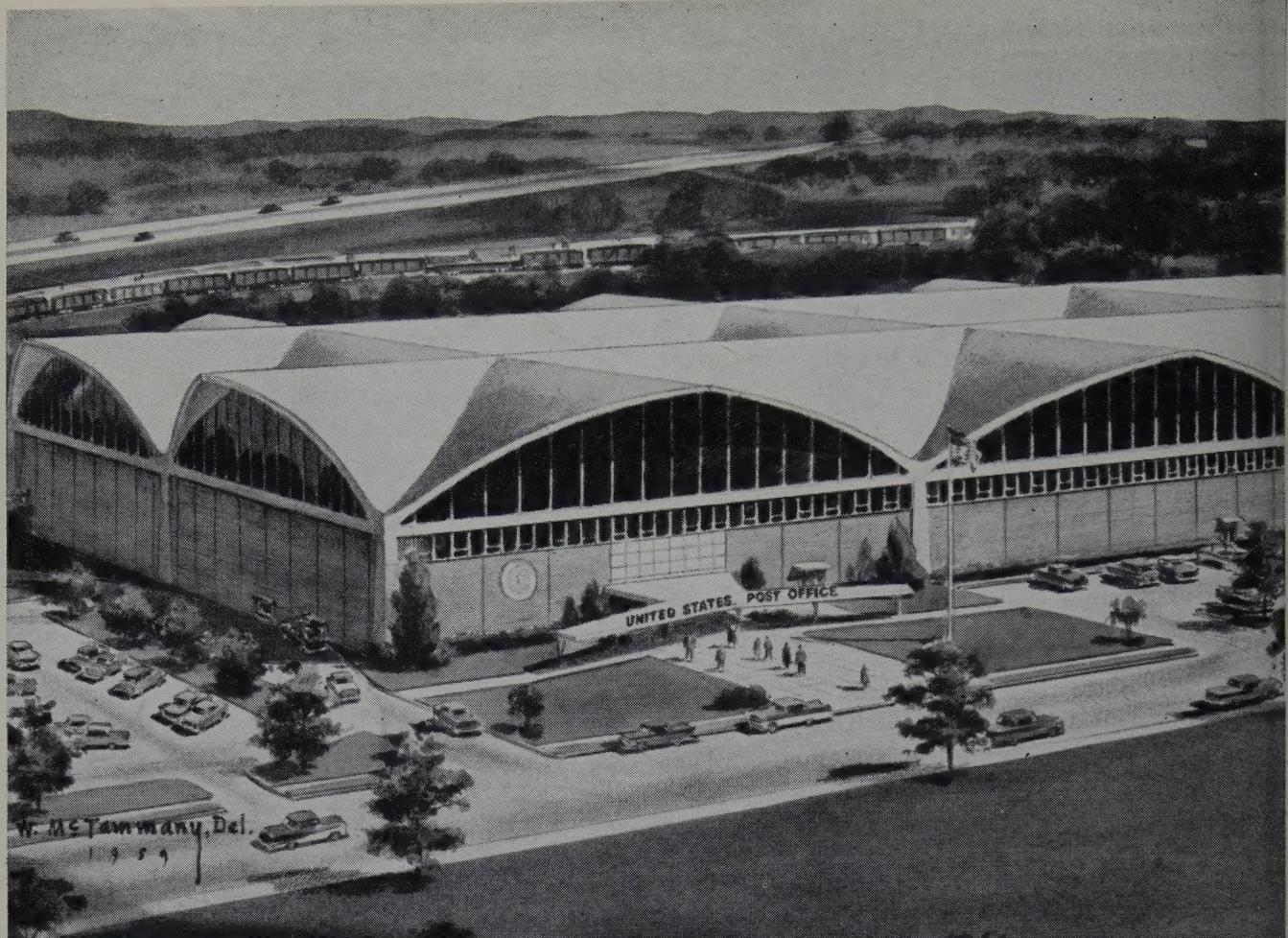
C. K. WILLETT

CONSULTING ENGINEER

Complete Engineering Service for All Municipal
 Improvements

317 North Galena Avenue

Dixon, Illinois



Architect's sketch of new post office, Providence, Rhode Island. Architect-Engineer: Charles A. Maguire & Associates, Providence, Rhode Island.

First mechanized post office...

concrete domed shells provide 420' x 300' area with just two interior column groupings

A mechanized post office at Providence, R. I., is first step in a postal modernization program that will eventually provide "next-day" delivery anywhere in the U.S.

Six intersecting concrete shells form the multiple domed roof. Two four-column groups provide the only interior support. This permits unobstructed floor space essential to the electronically controlled mail-flow layout and allows the flexibility required for experimental spotting and rearrangement of machines. Another benefit of a shell roof was to eliminate exterior buttresses of conventional arch construction which would interfere with outside truck traffic.

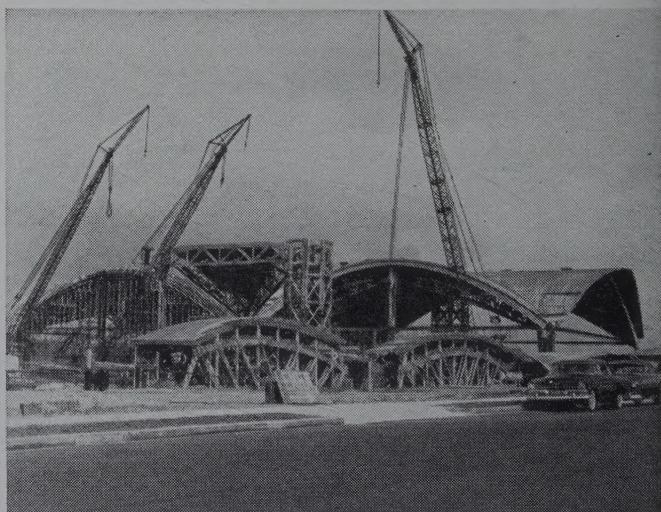
A concrete weighing 110 lb. per cu. ft. with a 2-inch slump and seven-day strength of 4,000 psi was used. Aggregate consisted of sand in combination with expanded shale. An air-entraining agent was added.

For design data on barrel shells and on standard, skewed, groined and sloping hyperbolic paraboloids, write for free literature. (U.S. and Canada only.)

PORLAND CEMENT ASSOCIATION

111 West Washington Street, Chicago 2, Illinois

A national organization to improve and extend the uses of concrete



FOR STRUCTURES...

MODERN

concrete

Falsework consisted of two identical sets of timber truss framing. 6'-thick shells each required 800 cu. yds. of concrete, placed in two operations. Spanning 150 x 140 ft., shells are separated by 2-in. expansion joints.